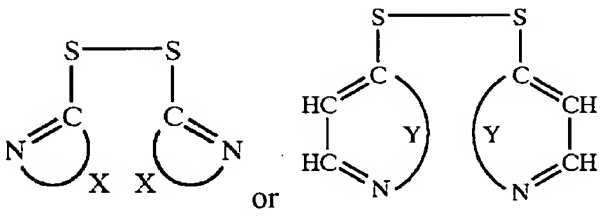
Courtesy Listing of the Claims:

No amendments are made herein. The following claim set is provided as an aid in following the remarks that follow.

1. (Previously presented) A method for modulating an immune response comprising:

identifying an individual in need of immune response modulation;

administering to the individual in need of immune response modulation an effective amount of a thione-forming disulfide comprising



wherein X and Y represent atoms necessary to form a five-membered or six-membered substituted or unsubstituted heterocyclic ring;

wherein the immune response is selected from the group consisting of: a cellular response, a humoral response and an innate immune response; and,

wherein the individual is other than an individual infected with a retrovirus; thereby modulating the immune response.

2. (Original) The method according to claim **1** wherein the immune response is a cellular immune response.

3. (Withdrawn) The method according to claim **2** wherein the cellular immune response is a T cell response and wherein cell populations are increased or lymphoproliferative activity is increased.

4. (Cancelled)

5. (Original) The method according to claim **1** wherein the immune response is an innate immune response.

6. (Original) The method according to claim **5** wherein the innate immune response comprises increasing the natural killer cell population and NK activity.

7. (Withdrawn) The method according to claim **1** wherein the immune response is a humoral immune response.

8. (Withdrawn) The method according to claim **7** wherein the humoral immune response is a decrease in B cell population or B cell response.

9. (Withdrawn) The method according to claim **8** wherein the humoral immune response is an increase or decrease in antibody secretion.

10. (Original) The method according to claim **1** wherein the immune response is biased towards a Th1-type response.

11. (Original) The method according to claim **10** wherein the Th1-type response is an increased cell population of NK cells or T cells.

12. (Original) The method according to claim **10** wherein the Th1-type response is an increased activity in NK cells or T cells.

13. (Withdrawn) The method according to claim **1** wherein the immune response is an increase in cytokine levels.

14. (Withdrawn) The method according to claim **13** wherein the cytokine is selected from the group consisting of IL-2, IFN-.gamma., IFN-.alpha., IFN-.beta., IL-12, TNF-.alpha., and TNF-.beta..

15. (Withdrawn) The method according to claim **1** wherein the immune response is an increase in chemokine levels.

16. (Withdrawn) The method according to claim **15** wherein the chemokine is selected from the group consisting of RANTES, IL-8, MIP-1.alpha., MIP-1.beta., MCP-1, lymphotactin, and eotaxin.

Claims 17 to 19. (Cancelled)

20. (Previously presented) The method according to claim **1** wherein the thione-forming disulfide heterocyclic rings comprise further heteroatoms selected from the group consisting of N, O, and S.

21. (Previously presented) The method according to claim **20** wherein the five- or six-membered heterocyclic ring comprises one or more negatively charged substituents.

22. (Previously presented) The method according to claim **1** wherein one or both of the heterocyclic rings in the thione-forming disulfide comprises a pyridinyl, pyrimidinyl, thiazolyl, or quinolinyl group.

23. (Previously presented) A method of modulating an immune response comprising:

identifying an individual in need of immune response modulation; and,

administering to the individual an effective amount of thione-forming disulfides wherein the compound is selected from the group consisting of: 6,6'-dithiodinicotinic acid (CPDS), 6,6'-dithiodinicotinic acid diethyl ester, 4-carboxypyrimidine-2-disulfide, diethyl 2,2'-dithiobis-(4-thiazol- e carboxylate), and 2,2'-dithiobis-isonicotinic acid;

wherein the individual is other than an individual infected with a retrovirus; and,

wherein the immune response is selected from the group consisting of: a cellular response, a humoral response and an innate immune response.

24. (Original) The method according to claim **23** wherein the thione-forming disulfides are administered in a pharmaceutically acceptable carrier.